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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WANG, RONGFA PHILIP

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/790,423	Applicant(s) KHARITIDI ET AL.	
	Examiner PHILIP WANG	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detail Action

1. This office action is in response to amendment filed 10/24/2008.
2. Per Applicant's request, claims 1 and 13 have been amended.
3. Claim objections of claims 1 and 13 have been withdrawn in view of the Applicant's amendment to the claims.
4. Claims 1-31 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Thienot et al. (USPG 20040013307) .

As per claim 1,

Thient et al disclose

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an act of identifying at least two XML schema types for which equivalence is to be determined, each of the at least two XML schema types having at least one schema component that can be presented differently in equivalent XML schema types; a step for determining equivalence of the at least two XML schema types; a step for normalizing each of the identified XML schema types

([0006], "... a structuring language such as...XML..."; [0012], "...normalizing it..."; [0016], "...if the documents transmitted always have the same structure schema, it is not necessary to transmit this at each document transmission...it is even pointless to transmit it when the schema is previously known..."; [0018] When decompressing, the structure schema is processed in the same way so as to determine the automata used for compression and to analyze the content of the compressed document for the purpose of reconstituting a document in the original format having a structure which is at least equivalent, if not identical, with decompression algorithms corresponding to the compression algorithms used during compression being executed to restore the original data sets from the binary information sequences located in the compressed document.)

As per claim 10,

- It is the computer program product claim corresponding to method claim 1 and is rejected for the same reason set forth in connection of the rejection of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 2-8, and 11-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thienot et al. (USPG 20040013307) in view of Brook (US PGPub. No. 2002/0038320).

As per claim 2,

the rejection of claim 1 is incorporated,

Thienot et al. disclose

- determining equivalence of the at least two normalized XML schema types([0012], "...normalizing it...").

Thienot et al. do not specifically disclose

- Creating and comparing hash numbers.

However, Brooks disclose

- Creating and comparing hash numbers ([0013], "...using the hash representation...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Brooks into the teachings of Thienot et al. to include the limitation discloses by Brooks. The modification would be obvious to one of ordinary skill in the art to want to be able to process document smarter as suggested by Brooks ([0008]: 1-5).

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As per claim 3,

the rejection of claim 1 is incorporated,

Brooks discloses

- wherein the act of identifying the XML schema types includes identifying XML schema types having the same QName ([0006], shows tagged name, which is QName.).

As per claim 4,

the rejection of claim 1 is incorporated,

Thienot et al. disclose

- wherein the step for normalizing each of the XML schema types includes writing the at least one schema component in each of the at least two XML schema types according to a unified format and prior to determining equivalence ([0012], "...normalizing it so as to obtain a single predefined sequence...").

As per claim 5,

the rejection of claim 4 is incorporated,

Thienot et al. disclose

- wherein writing the at least one schema component includes altering an order of at least two schema components within a single XML schema type ([0073], "...arranging elements...in a predefined order...").

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As per claim 6,

the rejection of claim 5 is incorporated,

Thienot et al. disclose

- wherein altering the order includes placing the at least two schema components into alphabetical order([0076], "...alphanumeric order...").

As per claim 7,

the rejection of claim 5 is incorporated,

Thienot et al. disclose

- wherein prior to altering the order, it is determined that the order of the at least two schema components is discretionary ([([0076], "...alphanumeric order..." Since components of a schema will be arranged in a predefined order, its original order is discretionary.)).

As per claim 8,

the rejection of claim 4 is incorporated,

Thienot et al. disclose

- wherein the at least one component is a discretionary component that is not explicitly recited in at least one of the XML schema types, and wherein writing

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the at least one schema component includes writing the at least one schema component for a first time ([0099] a parameter indicating whether the coding of the length of each element is mandatory or optional).

As per claims 11, and 12,

- they are the computer program product claims corresponding to method claims 2 and 4 respectively and are rejected for the same reason set forth in connection of the rejection of claims 2 and 4 above.

As per claim 13,

Thient et al disclose

- an act of identifying at least two XML schema types for which equivalence is to be determined, each of the at least two XML schema types having at least one schema component that can be presented differently in equivalent XML schema types;
- an act of comparing the at least two XML schema types; an act of generating a hash number for each of the at least two XML schema types([0006], "... a structuring language such as...XML..."; [0018] When decompressing, the structure schema is processed in the same way so as to determine the automata used for compression and to analyze the content of the compressed document for the purpose of reconstituting a document in the original format having a structure which is at least equivalent, if not identical, with decompression algorithms corresponding to the compression

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algorithms used during compression being executed to restore the original data sets from the binary information sequences located in the compressed document.);

- determining equivalence of the at least two normalized XML schema types([0012], "...normalizing it...").

Thienot et al. do not specifically disclose

- Creating and comparing hash numbers.

However, Brooks disclose

- Creating and comparing hash numbers ([0013], "...using the hash representation...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Brooks into the teachings of Thienot et al. to include the limitation discloses by Brooks. The modification would be obvious to one of ordinary skill in the art to want to be able to process document smarter as suggested by Brooks ([0008]: 1-5).

As per claim 14,

the rejection of claim 13 is incorporated,

Brooks discloses

- wherein the act of identifying the XML schema types includes identifying XML schema types having the same QName ([0006], shows tagged name, which is QName.).

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As per claim 15,

the rejection of claim 13 is incorporated,

Thienot et al. disclose

- wherein writing the at least one schema component includes rewriting an existing schema component into a new format ([0012]).

As per claim 16,

the rejection of claim 13 is incorporated,

Thienot et al. disclose

- wherein the at least one component is a discretionary component that is not explicitly recited in at least one of the XML schema types, and wherein writing the at least one schema component includes writing the at least one schema component into at least one of the XML schema types ([0099] a parameter indicating whether the coding of the length of each element is mandatory or optional).

As per claims 17-19,

- they recite the same limitations of claims 5-7 respectively and are rejected for the same reasons set forth for the rejections of claims 5-7 above.

As per claim 20,

- it recite the same limitations of claim 9 and is rejected for the same reason set forth for the rejection of claim 9 above.

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As per claim 21,

the rejection of claim 13 is incorporated,

Brook et al. disclose

- wherein the at least one component is a schema particle definition ([0213]-The examiner asserts that a schema particle definition as component is part of W3C recommendation. See <http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/#cParticles>, section 3.9).

As per claim 22,

the rejection of claim 13 is incorporated,

Brook et al. disclose

- wherein the at least one component is a schema attribute ([0213]- The examiner asserts that a schema particle definition as component is part of W3C recommendation. See <http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/#cParticles>, see section 3.2, 3.3).

As per claim 23,

the rejection of claim 13 is incorporated,

Theinot et al. disclose

- wherein the at least one component is at least one of a child and a sub-child of a named type([0100], "...may be...sub-typed...").

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As per claims 24 and 25,

- they are the computer program product claims corresponding to method claims 13 and 14 respectively and are rejected for the same reason set forth in connection of the rejection of claims are the computer program product claims corresponding to method claims 13 and 14 above.

As per claims 26, 31,

they are the computer program product claims corresponding to method claims 15 and 20 respectively and are rejected for the same reason set forth in connection of the rejection of claims 15 and 20 above.

As per claims 27-30,

- they are the computer program product claims corresponding to method claims 16-19 respectively and are rejected for the same reason set forth in connection of the rejection of claims are the computer program product claims corresponding to method claims 16-19 above.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thienot et al. (USPG 20040013307) in view of Brook (US PGPub. No. 2002/0038320) and further in view of Lim et al. (PGPub. No.: US 200410064826 A1).

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As per claim 9,

the rejection of claim 1 is incorporated,

Thienot et al./Brook do not specifically disclose

- upon determining equivalence, creating a single class that is used interchangeably for each equivalent XML schema type.

However, Lim et al. disclose

- upon determining equivalence, creating a single class that is used interchangeably for each equivalent XML schema type ([0056],
"...compiling a data model specification such as XML schema into code...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Lim et al. into the teachings of Thienot et al./Brook to include the limitation disclosed by Lim et al. . The modification would be obvious to one of ordinary skill in the art to want to enable different programs to communicate with each other by implementing corresponding data structures as suggested by Lim et al. ([0015]).

Response to Arguments

In the remark,

1) Applicant argues –

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The recited reference does not teach or suggest determining equivalence of XML schema types.

2) Examiner's response –

Thienot et al. discloses, [0006], "These documents employ a structuring language, such as SGML, HTML, XML...."; [0012], "...normalizing it so as to obtain a single predefined...schema..."; and [0016], "...if the documents transmitted always have the same structure...It is even pointless to transmit it when the schema is previous known to the document's addressee..." It appears that Thienot et al. disclose at least determining equivalence of one XML schema type that is to be transmitted and one that is previously known to the addressee.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00AM - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PW 1/2/2009

/Ted T. Vo/
Primary Examiner, Art Unit 2191